# RF Exposure Report

**Report No.:** SA150825C34

**FCC ID:** KA2WL8710APA1

**Test Model:** DWL-8710AP

**Received Date:** Aug. 25, 2015

**Test Date:** Sep. 25 ~ Oct. 29, 2015

**Issued Date:** Nov. 05, 2015

**Applicant:** D-Link Corporation

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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## Release Control Record

| Issue No. | Description | Date Issued |
|---|---|---|
| SA150825C34 | Original release | Nov. 05, 2015 |

## 1 Certificate of Conformity

| | |
|---|---|
| **Product:** | 802.11n/ac Unified Wireless Outdoor Access Point |
| **Brand:** | D-Link |
| **Test Model:** | DWL-8710AP |
| **Sample Status:** | Engineering sample |
| **Applicant:** | D-Link Corporation |
| **Test Date:** | Sep. 25 ~ Oct. 29, 2015 |
| **Standards:** | FCC Part 2 (Section 2.1091)<br>KDB 447498 D01 General RF Exposure Guidance v06<br>IEEE C95.1:2005 |

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :** _____ , **Date:** Nov. 05, 2015

Suntee Liu / Specialist

**Approved by :** _____ , **Date:** Nov. 05, 2015

Ken Liu / Senior Manager

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density ($mW/cm^2$) | Average Time (minutes) |
|---|---|---|---|---|
| Limits For General Population / Uncontrolled Exposure | | | | |
| 300-1500 | … | … | F/1500 | 30 |
| 1500-100,000 | … | … | 1.0 | 30 |

F = Frequency in MHz

### 2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in $mW/cm^2$

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 24cm away from the body of the user. So, this device is classified as **Mobile Device**.

## 3 Calculation Result Of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density ($mW/cm^2$) | Limit ($mW/cm^2$) |
|---|---|---|---|---|---|
| 2412-2462 | 28.73 | 7.93 | 24 | 0.640 | 1 |
| 5180-5240 | 20.77 | 9.93 | 24 | 0.162 | 1 |
| 5745-5825 | 23.77 | 9.93 | 24 | 0.324 | 1 |

Note:
2412-2462MHz Directional gain = 4.92dBi + 10log(2) = 7.93dBi
5180-5240MHz Directional gain = 6.92dBi + 10log(2) = 9.93dBi
5745-5825MHz Directional gain = 6.92dBi + 10log(2) = 9.93dBi

**Conclusion:**
The formula of calculated the MPE is:
CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1
CPD = Calculation power density
LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.640 + 0.324 = 0.964
Therefore all the maximum calculations of above situations are less than the “1” limit.

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